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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,001	12/03/2001	Mohammed N. Islam	068069.0116	2948

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EXAMINER	
VU, THONG H	

ART UNIT	PAPER NUMBER
2142	

DATE MAILED: 08/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/006,001	ISLAM, MOHAMMED N.	
	Examiner	Art Unit	
	Thong H. Vu	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *65,66,83-89 and 91* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *65,66,83-87,88,89 and 91* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 58-61, drawn to a star switching fabric, a first and second tunable filter, a first and second wavelength, a single output router, classified in class 385, subclass 24.

II. Claims 62-64, drawn to a star switching fabric, a first line card, a payload, a first packet, a first and second transmitter, first and second duration, a router packet having a first wavelength, a plurality of tunable filters, a separate output link from router, classified in class 398, subclass 19.

III. Claims 65-66,83-87,88,90,91, drawn to a star switching fabric, a first line card, an aggregate frame, a plurality of filters, a separate output link from router, classified in class 398, subclass 1.

IV. Claims 68-69,89, drawn to a star switching fabric, a first line card, an aggregate frame, a first and second identifier, a plurality of filters, a separate output link from router, classified in class 359 subclass 176.

V. Claims 71-82, drawn to a star switching fabric, a first line card, an aggregate frame, an identifier, a first and second filters, a separate output link from network, classified in class 398, subclass 9.

The inventions are distinct, each from the other because of the following reasons:

Inventions I,II,III,IV and V are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one

subcombination is separately usable. In the instant case, subcombination (i.e.: single output router, first and second wavelength, transmitter, ID, duration, first card, first packet has separate utility such as hardware and software to support the performances. See MPEP § 806.05(d).

Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are independent or distinct for the reasons given above and the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Brian J. Gaffney, #51712, on 7/25/06, a provisional election was made without traverse to prosecute the invention of Group III, claims 65-66,83-87,88,90,91. Affirmation of this election must be made by applicant in replying to this Office action. Claims 58-64,68,69,71-82 and 89 have been withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

2. Claims 65,66,83-87,88,89 and 91 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 65,66,83-87,88,89 and 91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boroditsky et al [Boroditsky, 2002/0064165 A1] in view of Fincato et al [Fincato 6,285,810 B1].

3. As per claim 65, Boroditsky discloses a router [Boroditsky, Router, 0059] comprising a plurality of line cards coupled to a star switching fabric [Boroditsky, a star architecture, 0053], a method of routing optical signals, comprising:

receiving at a first line card a first optical packet comprising a payload and having a first duration [Boroditsky, wavelength lamda-8 has the longest delay, 0068];

generating, based on the first packet, an optical router packet comprising the payload and having a second duration shorter than the first duration, the optical router packet having a first wavelength [Boroditsky, wavelength lamda-1 has the shortest delay, 0068];

communicating the optical router packet to a star switching fabric [Boroditsky, a star architecture, 0053];

communicating the optical router packet from the star switching fabric to each of a plurality of tunable filters each associated with a separate output link from the router

[Boroditsky, Tunable filter, 0014]; and facilitate communicating at least the payload of the optical router packet toward the destination element [Boroditsky, switch facilitates a packet, claims 4,5,8].

However Boroditsky does not explicitly detail

communicating a control signal to at least a selected tunable filter associated with a communication path to a destination element, the control signal operable to cause the selected tunable filter to accept the optical router packet

In the same endeavor, Fincato discloses a tunable add/drop optical device including a control signal [Fincato, detected signal usable by tuning control loop for maintaining optimal tuning of filter on the selected channel, col 10 lines 51-56, col 11 lines 1-7; col 17 lines 10-15]

Therefore it would have been obvious to an ordinary skill in the art at the time the invention was made to incorporate the technique of using the control signal to operate the tunable filter on a selected channel as taught by Fincato into the Boroditsky's apparatus in order to utilize the tunable filter. Doing so would implementing a device having a reduced complexity and cost [Fincato, col 5 lines 60-65].

4. As per claim 66, Boroditsky-Fincato disclose receiving the optical router packet from the selected tunable filter [Boroditsky, Router, 0059; Tunable filter, 0014]; generating an output optical packet comprising the payload and having the first duration [Boroditsky, duration, 0091]; and communicating the output optical packet from the router toward the destination element [Boroditsky, destination node, 0061].

5. As per claim 83 Boroditsky-Fincato disclose In a network comprising a plurality of line cards (i.e.: channels) coupled to a star communication fabric [Boroditsky, a star architecture, 0053], a method of transmitting optical signals, comprising:

receiving at a first line card a first packet comprising a payload and having a first duration [Boroditsky, duration, 0091];

generating, based at least in part on the first packet, an optical network packet comprising the payload and having a second duration shorter than the first duration, the optical network packet having a first wavelength [Boroditsky, wavelength lamda-8 has the longest delay, wavelength lamda-1 has the shortest delay, 0068];

communicating the optical network packet to a star communication fabric [Boroditsky, a star architecture, 0053];

communicating the optical network packet from the star communication fabric to each of a plurality of filters each associated with a separate output link from the network [Boroditsky, Tunable filter, 0014];

communicating a control signal to at least a first filter associated with communication path to a destination element, the control signal operable to cause the selected filter to accept the optical network packet and to facilitate communicating at least the payload of the optical network packet toward the destination element [Fincato, detected signal usable by tuning control loop for maintaining optimal tuning of filter on the selected channel, col 10 lines 51-56, col 11 lines 1-7; col 17 lines 10-15];

communicating a message from a transmitter at the destination element to the star communication fabric, the message having a second wavelength [Boroditsky, the second wavelength or wavelength lamda-1 has the shortest delay, 0068]; and

communicating at least a portion of the message from the star communication fabric to a second filter associated with a communication path to the first line card, wherein the second filter accepts the message and facilitates communicating the portion of the message to the first line card [Borditsky, router accept and convert a serial stream of packet into a composite packet as output, 0069,0071,0073,0074].

6. As per claim 84 Boroditsky-Fincato disclose the star communication fabric comprises one or more power splitters [Boroditsky, power splitter, 0004].

7. As per claim 85 Boroditsky-Fincato disclose the one or more power splitters separate an input optical signal into sixteen (16) or more outgoing signals as inherent feature of power slitter.

8. As per claim 86 Boroditsky-Fincato disclose the first line card comprises a plurality of transmitters and wherein each transmitter communicates a different center wavelength [Boroditsky, different wavelength, 0055].

9. As per claim 87 Boroditsky-Fincato disclose an optical amplifier operable to amplify at least one of the wavelengths from the plurality of transmitters [Boroditsky, optical amplifier, 0090].

10. As per claim 88 Boroditsky-Fincato disclose the destination element comprises a plurality of receivers [Boroditsky, destination node, 0061].

11. As per claim 90 Boroditsky-Fincato disclose the optical network packet comprises an Internet Protocol (IP) packet or a Transmission Control Protocol (TCP) packet as inherent feature of packet network.

12. As per claim 91 Boroditsky-Fincato disclose the control signal is based on a round robin scheduling algorithm as inherent feature of schedule and algorithm [Boroditsky, 0060,0063].

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thong Vu*, whose telephone number is (571)-272-3904. The examiner can normally be reached on Monday-Thursday from 6:00AM- 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Andrew Caldwell*, can be reached at (571) 272-3868. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

lnformation regarding the status of an application may be obtained from the Patent Application lnformation Retrieval IPAIRI system. Status information for published applications may be obtained from either Private PMR or Public PMR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thong Vu
Primary Examiner
Art Unit 2142